

**CLAIM SUMMARY DOCUMENT**

*The following listing of claims will replace all prior versions and listings of claims in this application.*

**LISTING OF CLAIMS:**

1. (Canceled)

2. (Previously Presented) A braking force distribution control device comprising:

wheel speed detecting means for detecting wheel speeds of respective wheels of a vehicle;

road surface  $\mu$  slope estimating means for, on the basis of the detected wheel speeds, estimating for the respective wheels slopes of a coefficient of friction  $\mu$  between the wheels and a road surface as road surface  $\mu$  slopes;

control means for, on the basis of the road surface  $\mu$  slopes estimated for the respective wheels by the road surface  $\mu$  slope estimating means, distributing braking forces to the respective wheels by controlling the braking force of each wheel; and

wherein on the basis of the detected wheel speeds, the road surface  $\mu$  slope estimating means estimates slopes of braking forces with respect to wheel slip speeds as the road surface  $\mu$  slopes for the respective wheels, and the control means controls a braking torque of a wheel which is an object of control on the basis

of the road surface  $\mu$  slope of the wheel which is an object of control and the road surface  $\mu$  slope of a reference wheel among the road surface  $\mu$  slopes estimated by the road surface  $\mu$  slope estimating means.

3. (Previously Presented) A braking force distribution control device according to claim 2, wherein in a case in which a front wheel is the reference wheel and a rear wheel is the wheel which is the object of control, when a variation between the road surface  $\mu$  slope of the front wheel and the road surface  $\mu$  slope of the rear wheel is greater than or equal to a predetermined value, the control means one of maintains and reduces the braking torque of the rear wheel, and when the variation is less than the predetermined value, the control means increases the braking torque of the rear wheel.

4. (Previously Presented) A braking force distribution control device according to claim 3, wherein when the control means one of maintains and reduces the braking torque of one of the rear wheels, the control means maintains the braking torque of another of the rear wheels.

5. (Previously Presented) A braking force distribution control device according to claim 2, wherein in a case in which a rear wheel is the reference wheel and a front wheel is the wheel which is the object of control, when a variation between the road surface  $\mu$  slope of the front wheel and the road surface  $\mu$  slope of

the rear wheel is greater than or equal to a predetermined value, the control means increases the braking torque of the front wheel, and when the variation is less than the predetermined value, the control means one of maintains and reduces the braking torque of the front wheel.

6. (Previously Presented) A braking force slope distribution device according to claim 2, wherein in a case in which a turning inner side wheel is the reference wheel and a turning outer side wheel is the wheel which is the object of control, when a variation between the road surface  $\mu$  slope of the turning inner side wheel and the road surface  $\mu$  slope of the turning outer side wheel is greater than or equal to a predetermined value, the control means increases the braking torque of the turning outer side wheel, and when the variation is less than the predetermined value, the control means one of maintains and reduces the braking torque of the turning outer side wheel.

7. (Previously Presented) A braking force distribution control device according to claim 2, wherein in a case in which a turning outer side wheel is the reference wheel and a turning inner side wheel is the wheel which is the object of control, when a variation between the road surface  $\mu$  slope of the turning outer side wheel and the road surface  $\mu$  slope of the turning inner side wheel is greater than or equal to a predetermined value, the control means one of maintains and reduces the braking torque of the turning inner side wheel, and when the variation is less than

the predetermined value, the control means increases the braking torque of the turning inner side wheel.

8. (Previously Presented) A braking force distribution control device according to claim 2, wherein the control means controls the braking torque by using one of a turning inner side front wheel, a turning outer side front wheel, a turning inner side rear wheel, and a turning outer side rear wheel as the reference wheel, and using at least one other wheel as the wheel which is the object of control.

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)